WHAT IS CLAIMED IS:

1. A non-adhered paint calculation method using a non-adhered paint calculation process, characterized in that:

presuming that at least a coating thickness simulation is executed for calculating a coating thickness distribution value of paint coating thickness of each portion of an object to be painted;

determining an amount of adhered paint, which is the paint adhered to the object to be painted, based on the coating thickness distribution value obtained from the coating thickness simulation and a paint area of the object to be painted;

considering an amount of sprayed paint which is the paint that has been discharged from a paint machine; and

calculating an amount of non-adhered paint which is the paint that did not adhere to the object to be painted.

2. A non-adhered paint calculation method as defined in Claim 1, characterized in that dry weight of the non-adhered paint is calculated by multiplying the amount of non-adhered paint by specific gravity of the paint and a proportion of solidified paint, or multiplying weight of the non-adhered paint by the proportion of the solidified paint.

3. A non-adhered paint calculation method for calculating dry weight of non-adhered paint, which is the dry weight of the paint that did not adhere to an object to be painted, characterized in that a non-adhered paint calculation process comprised of the following procedures (1) and (2) based on the presumption that at least a coating thickness simulation is executed for calculating a coating thickness distribution value of paint coating thickness of each portion of the object to be painted:

(1)   Said coating thickness distribution value obtained from said coating thickness simulation, a paint area of the object to be painted, and specific

gravity of dried paint are multiplied together to determine dry weight of the adhered paint, and weight of sprayed paint is multiplied by a proportion of solidified paint to determine dry weight of the sprayed paint, and

(2) Said dry weight of the adhered paint is subtracted from said dry weight of the sprayed paint to determine said dry weight of the non-adhered paint.

4. A non-adhered paint calculation method as defined in Claim 3, characterized in that the weight of the sprayed paint in said procedure (1) is calculated by multiplying the amount of the sprayed paint, which is a bulking value of the paint sprayed from a paint machine, by the specific gravity of the paint.

5. A non-adhered paint calculation method as defined in Claim 3, characterized in that said dry weight of the sprayed paint is calculated by multiplying the amount of sprayed paint by the specific gravity of the paint and the proportion of the solidified paint in said procedure (1).

6. A non-adhered paint calculation method as defined in either one of Claims 3-5, characterized in that said procedure (1) conducts an integration process using said coating thickness distribution value and said paint area.

7. A non-adhered paint calculation method as defined in either one of Claims 1-6, characterized in that said non-adhered paint calculation process is conducted based on the coating thickness simulation results at a time when a paint-adhering efficiency, which is an efficiency of the paint adhering to the object to be painted, becomes relatively high by repeatedly executing said coating thickness simulation while changing input conditions.

8. A solvent weight calculation method using a solvent weight calculation process, characterized in that:

presuming that at least a coating thickness simulation is executed for calculating a coating

thickness distribution value of paint coating thickness of each portion of an object to be painted;

determining an amount of adhered paint, which is the paint adhered to the object to be painted, based on the coating thickness distribution value obtained from the coating thickness simulation and a paint area of the object to be painted; and

calculating weight of adhered solvent, which is the weight of the solvent adhered to the object to be painted, based on the amount of the adhered paint.

9. A solvent weight calculation method for calculating solvent weight of adhered paint, which is the solvent weight of the paint adhered to an object to be painted, by a solvent weight calculation process comprised of the following procedures (1)-(4) based on the presumption that at least a coating thickness simulation is executed for calculating a coating thickness distribution value of paint coating thickness of each portion of the object to be painted:

(1) Said coating thickness distribution value obtained from said coating thickness simulation is multiplied by a paint area of the object to be painted to determine an amount of dried adhered paint, which is a bulking value of the dried paint adhered to the object to be painted.

(2) Said amount of dried adhered paint is multiplied by specific gravity of the dried paint to determine dry weight of the adhered paint.

(3) Said dry weight of the adhered paint is divided by a proportion of solidified paint to determine weight of the adhered paint.

(4) Said dry weight of the adhered paint is subtracted from said weight of the adhered paint to determine said solvent weight of the adhered paint.

10. A solvent weight calculation method for calculating solvent weight of adhered paint, which is the solvent weight

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of the paint adhered to an object to be painted, by a solvent weight calculation process comprised of the following procedures (1)-(3) based on the presumption that at least a coating thickness simulation is executed for calculating a coating thickness distribution value of paint coating thickness of each portion of the object to be painted:

(1)   Said coating thickness distribution value obtained from said coating thickness simulation, a paint area of the object to be painted, and specific gravity of dried paint are multiplied together to determine dry weight of the adhered paint.

(2)   Said dry weight of the adhered paint is divided by a proportion of solidified paint to determine weight of the adhered paint.

(3)   Said dry weight of the adhered paint is subtracted from said weight of the adhered paint to determine said solvent weight of the adhered paint.

11. A solvent weight calculation method for calculating solvent weight of adhered paint, which is the solvent weight of the paint adhered to an object to be painted, by a solvent weight calculation process comprised of the following procedures (1) and (2) based on the presumption that at least a coating thickness simulation is executed for calculating a coating thickness distribution value of paint coating thickness of each portion of the object to be painted:

(1)   Said coating thickness distribution value obtained from said coating thickness simulation, a paint area of the object to be painted, and specific gravity of dried paint are multiplied together, then divided by a proportion of solidified paint to determine weight of the adhered paint.

(2)   Said weight of the adhered paint is multiplied by a proportion of non-solidified paint to determine said solvent weight of the adhered paint.

12. A solvent weight calculation method as defined in either one of Claims 9-11, characterized in that said procedure (1) conducts an integration process using said coating thickness distribution value and said paint area.

13. A solvent weight calculation method as defined in either one of Claims 8-12, characterized in that said solvent weight calculation process is conducted based on the coating thickness simulation results at a time when a paint-adhering efficiency, which is an efficiency of the paint adhering to the object to be painted, becomes relatively high by repeatedly executing the coating thickness simulation while changing input conditions.